

CHTETSOVA, V. M.; MALYSHEVA, R.A. and YELAGINA, L.V.

"The C. F. T. with the toxoplasmosis Antigen in Cases of Anomalies of Development of the Fetus and with Certain Types of Obstetric Pathology"

Voprosy toksoplazmoza, report theses of a conference on toxoplasmosis, Moscow, 3-5 April 1961, publ. by Inst Epidemiology and Microbiology im. N. F. Gamaleya, Acad. Med. Sci USSR, Moscow, 1961, 69pp.

CHTETSOVA, V.M.; BABIKOVA, N.I.; KLIMOVA, L.I.

Immunobiological reactivity of infants during severe recurrent pneumonia.
Vop. okh. mat. i det. 6 no.7:27-31 J1 '61. (MIRA 14:8)

1. Iz pediatricheskogo otdeleniya (rukovoditel' - dotsent R.Ye. Leyenson) Sverdlovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i mladenchestva (dir. - kandidat med. nauk R.A.Malyasheva; nauchnyy rukovoditel' - doktor med.nauk V.M.Lotis).
(PNEUMONIA)

CHTETSOVA, V.M.; BABIKOVA, N.I.; KLIMOVA, L.I.

Some indices of natural immunity in healthy infants. Vop.
okh. mat. i det. 7 no.1:60-63 Ja '62. (MIRA 15:3)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta
okhrany materinstva i mladenchestva (dir. - kand.med.nauk
R.A. Malysheva; nauchnyy rukovoditel' - doktor med.nauk
V.M. Lotis; rukovoditel' raboty - dotsent R.Ye. Leyenson).
(IMMUNITY)

CHTETSOVA, V.M.; KLIMOVA, L.I.

Determination of the sensitivity to antibiotics of the pathogens of
chronically recurrent pneumonias in infants. Vop.okh.mat.i det. 7
no.7:10-13 JI '62. (MIRA 15:11)

1. Iz pediatricheskogo otdeleniya (rukovoditel' - dotsent R.Ye.
Leyenson) Sverdlovskogo nauchno-issledovatel'skogo instituta
okhrany materinstva i mladenchestva (dir. - kand.med.nauk R.A.
Malysheva).

(PNEUMONIA)

(ANTIBIOTICS)

CHTETSOVA, V.M.

Characteristics of the pathogens of prolonged recurrent and chronic pneumonias in infants. Zhur, mikrobiol., epid. i immun. 41 no.10:144 '64. (MIRA 18:5)

1. Sverdlovskiy institut okhrany materinstva i mladenchestva.

SWIERCZYNSKA, Zdzisława; CHYŁEJ, Ryszard

Normal anti-bacterial antibodies in various types of animals.
Med.dow.mikrob. 12 no.1:95-98 '60.

1. Z Zakładu Mikrobiologii Śl. A.M. Zabrze-Rokitnica.
(ANTIBODIES)

S/196/61/000/011/022/042
E194/E155

AUTHOR: Chtvrtechka, Lyubomir (Čtyrtečka, Lyubomír)

TITLE: Differential protection of the line

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika,
no.11, 1961, 44, abstract 11E 311. (Chekhosl.
tyazhelaya prom-st', no.2, 1961, 40-46)

TEXT: The article reviews longitudinal differential protection of high-voltage transmission lines in Czechoslovakia. The usual operating principles of these protective systems are described. A detailed description is given of the circuit of a phase-protective scheme which compares the phase of output voltages of transformer filters. The comparison is made in a sensitive relay circuit by means of a two-conductor pilot line. The filter used in this scheme is a current transformer with three primary windings having kn turns in phase A, $(k + 1)n$ turns in phase B, and $(k + 2)n$ turns in phase C. The various phase sequence e.m.f.'s are of the form:

$$M_1 = nI_{A1} [k + (k + 1)a^2 + (k + 2)a],$$

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Differential protection of the line

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$$M_2 = nI_{A2} [k + (k + 1)a + (k + 2)a^2],$$

$$M_0 = nI_{A0} [k + (k + 1) + (k + 2)].$$

Depending upon the value of k , this transformer may filter only positive and negative phase sequence or all three phase sequences simultaneously. The transformer has two secondary windings; one is located on an oversaturated core of the transformer and a peak waveform voltage is drawn from it, while the other is mounted on a gapped core and delivers a sinusoidal waveform (this is a blocking voltage and at the receiving end it is converted into a square wave). The phases of these voltages are compared and the peak voltage is a local signal whilst the sine voltage is transmitted. With voltage curves of this waveshape, delay of the transmitted signal has less influence. This scheme can also be used together with high-frequency devices; its operation time is 25 microseconds. ✓

[Abstractor's note: Complete translation. Published in English in "Czechoslovak Heavy Industry", no 2, 1961, pp 40-46.]

Card 2/2

CHALTYKYAN, O.A.; CHTYAN, G.S.; DARBINYAN, G.

Possibility and accuracy of determining the rate of oxidation for cuprous chloride in a complex salt solution by measuring the conductivity. Nauch.trudy Nrev.un.no.53:95-103 '56. (MLRA 9:10)

1.Kafedra fizicheskoy khimii.
(Copper chlorides) (Oxidation)

CHALTYKYAN, O.A.; CHTYAN, G.S.

Autooxidation kinetics of copper chloride in acidic aqueous
solutions of potassium chloride. Nauch. trudy Erev. un. 60:
125-133 '57.

(MIRA 11:8)

1. Kafedra fizicheskoy khimii Yerevanskego gosudarstvennogo
universiteta.

(Copper chloride) (Oxidation) (Potassium chloride)

DARBIYAN, M.V.; CHTYAN, G.S.; MELKUMOVA, L.S.

Production of magnesium oxide and nitrates from dolomite.
Izv.AN Arm.SSR. Khim.nauki 18 no.4:341-346 '65.

(MIRA 18:12)

1. Yerevanskiy gosudarstvennyy universitet, kafedra
neorganicheskoy khimii. Submitted July 18, 1964.

Chuadze, A.D.

L 40984-65 EWT(1)/EWG(v)/EEC(t) Pe-5/Pae-2 GM
ACCESSION NR: AR5009012 S/0269/65/C00/002/0033/0033

SOURCE: Ref. zh. Astronomiya. Otd. vyp., Abs. 2.51.278

AUTHOR: None

TITLE: Supernova ✓

CITED SOURCE: Astron. tsirkulyar, no. 288, marta 20, 1964, 1

TOPIC TAGS: supernova, galactic astronomy, type I supernova, astrophysics

TRANSLATION: This article reports the discovery made by M. Lovas (Budapest) of a supernova in an unnamed galaxy; the discovery was made on 12/13 March 1964. The coordinates of the supernova are: $\alpha = 11^h 52^m 10^s$, $\delta = 53^\circ 32'$ (1855). The report also estimates of the brightness made by Lovas, A. D. Chuadze (Abastumani) and G. Medvedeva (Byurakan) (see Table in Enclosure). On 13-14 March 1964, G. Medvedeva obtained a spectrum of the supernova which was typical of type-I supernovae. G. Medvedeva.

SUB CODE: AA

ENCL: 01

Card 1/2

L 40984-65

ACCESSION NR: AR5009012

ENCLOSURE: 01

Table 1.

	Lovas	Chuadze	Markaryan
14/15 Dec 1963	19 th , 93		
19 Feb 1964		14 th , 0	
20 Feb •		13.2	
20 Feb •		13.6	
12/14 Mar •	13.21		
15/16 Mar •	13.52	13.7	
16/17 Mar •	13.47	12.9	13 th , 3

Card

2/2

CHUADZE, A.D.

Observations of minor planets in Abastumani. Biul. Inst. teor.
astron. 9 no.9:623 '64. (MERA 17:12)

1. Abastumanskaya astrofizicheskaya observatoriya.

MOSIDZE, L.N.; CHUADZE, A.D.

Photographic observations of three UV Ceti type stars. Biul. Abast.
astrofiz. obser. 32:21-29 '65. (MIRA 18:10)

CHUB, A. T.

CHUB, A. T. -- "Central Curves of the Fourth Order." Leningrad State Pedagogical Inst imeni A. I. Gertsen, Leningrad, 1955. (Dissertations for the Degree of Candidate in Physicomathematical Science)

SO: 'Knizhnaya Letopis', No. 39 24 Sept 55

CHUB, D.
CHUD, D.

Chub

Organizational role of the Industrial Bank. Fin.SSR 18
no.2:61-62 F '57. (MLRA 10:5)

1.Zamestitel' upravlyayushchego Dnepropetrovskoy oblastnoy kontorey
Prombanka.

(Banks and banking)

CHUB, D.

From payment practice in construction. Fin. SSSR 19 no.2:69-71
F '58. (MIRA 11:3)

1. Zamestitel' upravlyayushchego Dnepropetrovskoy kontorey
Prombanka.

(Industry--Finance) (Payment)

CHUB, G. F. and YUDOVICH, S. Z.

"Conditions for Obtaining a Good Surface in Rolling Springs," Stal', No.5,
pp. 349-54, 1945

Evaluation B-60429

CHUB, G. F.

Uses of the Carbon
Carbon Dioxide

1.
LF2C

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CHUB, G. F.

133-10-19/26

AUTHOR: Ioffe, M. M., Petrenko, A. G., and Chub, G. F. Engineers.

TITLE: The Influence of Technological Factors on the Electromagnetic Properties of Cold Rolled Transformer Steel.
(Vliyaniye Tekhnologicheskikh Faktorov Na Elektromagnitnye Svoystva Kholodnokatanoy Transformatornoy Stali).

PERIODICAL: Stal', 1957, No.10, pp. 936-940 (USSR).

ABSTRACT: During the mastering of the production of cold rolled transformer steel 0.35 and 0.50 mm thick, 750 x 750 mm., Zaporozhstal' Works together with TsNIChM carried out an investigation of the influence of various technological factors on the magnetic properties of steel. The following factors were studied: the influence of silicon and carbon content, vacuum treatment of liquid steel, the influence of a preliminary annealing of hot rolled strip on properties of cold rolled steel and the influence of vacuum annealing. The dependence of specific losses of cold rolled transformer steel 0.5 mm thick on the content of silicon and carbon, Table 1. A comparison of electromagnetic properties of cold rolled transformer steel untreated and treated in vacuo, Table 2 and Figure 3. Mechanical and magnetic properties of transformer steel cold rolled with and without a preliminary annealing, Tables 3 and 4 respectively. The influence of the temperature of vacuum annealing on the electromagnetic

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The Influence of Technological Factors on the Electromagnetic Properties of Cold Rolled Transformer Steel.

properties of cold rolled transformer steel - Table 5.
It is concluded that: the optimum silicon content in the transformer steel under operating conditions of the works is 2.9 - 3.3%, further increase in silicon content has no practical influence on the magnetic properties while it makes cold rolling more difficult. The content of carbon in finished sheets varied from 0.010 to 0.015%, a decrease in carbon content within those limits leads to only a small decrease in specific losses. Decarburisation takes place only during preliminary annealing. Vacuo treatment of the liquid steel produces a decrease in the contents of carbon and sulphur in the metal. A more accurate study of the influence of vacuum treatment on decreasing specific losses is necessary. Increasing the temperature of annealing in vacuo (20-40 mm Hg) above 1100°C does not lead to a further decrease in specific losses. The following participated in the work: I.L. Zlatkin, S.M. Popov, N.A. Troshchenkov and M.I. Veklich. There

Card 2/3 are 5 tables, 5 figures and 3 references, all are Slavic.

133-10-19/26
The Influence of Technological Factors on the Electromagnetic
Properties of Cold Rolled Transformer Steel.

ASSOCIATION: Zaporozhstal' Works and TsNIChM. (Zavod
Zaporozhstal' i TsNIChM).

AVAILABLE: Library of Congress
Card 3/3

CHUB, G. F.

AUTHOR: Chub, G. F.

133-10-26/26

TITLE: Scientific-Research Works of the Zaporozhstal' Works.
(Nauchno-Issledovatel'skiye Raboty Zavoda "Zaporozhstal'")

PERIODICAL: Stal', 1957, No.10, pp. 957-959 (USSR).

ABSTRACT: A brief review of the main research work carried out on the above works is given. The following items are mentioned: A. Technology of production of fluxed sinter with a basicity above 0.6. It was found that the output of a sinter strand increases with increasing basicity of sinter only to a basicity ratio of 0.9 (with a basicity ratio above 1.0 the output decreases), whereupon: a) on addition to sinter mixes of a basicity about 0.83 of each percent of lime increases the output of the strand by 3%; b) increasing the ignition temperature from 1160-1180°C to 1225-1230°C increased the strand output from 78.4 to 81.6 t/hr. The strength of sinter (drum test) remains practically unchanged with changes in the basicity within a range of 0.7 - 1.0. A decrease in the size of limestone from 0-3 to 0-2 mm at a sinter basicity 0.8 - 0.9 leads to a decrease in the free lime content of sinter (from 0.8 - 1.0% to 0.3 - 0.4%) and an increase in the sinter reducibility by 3-4%.

B. Intensification of the sintering process by lime
Card 1/10 obtained from limestone calcined on top of the sinter

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Scientific-Research Works of the Zaporozhstal' Works.

bed. It was established that calcining of limestone (0-3 mm) containing 10% of coke breeze and 6-7% of moisture on top of the sinter bed in a proportion of 20kg/m² and the subsequent use of lime so produced in the sinter mix increases the output of the strand by not less than 8%. C. Improvement in the production of pig iron. The use of fluxed sinter (basicity 0.9) with simultaneous exclusion from the burden of 55% of limestone increased the output by 7%, mainly due to a decrease in the coke rate to 800-830 kg/ton, the intensity of driving remained unchanged. A preliminary test of automatic control of furnace operation on the basis of pressure drop along the height of the furnace gave positive results. Investigation of the control of top gas pressure, humidity, blast temperature and blast volume using a specially designed distributing installation (no details given) indicated that the furnace operation should be controlled by two pressure drops. An increase in the pressure in the upper levels of the furnace should energise "autocontrol from the top" and increase in the pressure drop in the lower part of the furnace -

Card 2/10 "autocontrol from the bottom". An apparatus for continuous

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Scientific-Research Works of the Zaporozhstal' Works.

measuring of the temperature of pig iron and a radiation pyrometer for measuring temperature in the tuyere zone were designed and built. Optico-acoustic gas analysers for the determination of CO_2 in top gas were put into operation. An ultrasonic method of determining stock level was tested on a model and a corresponding equipment for one blast furnace is being designed. D. Intensification of smelting steel in open hearth furnaces using oxygen. The combined use of oxygen (to flame from the beginning of charging to the middle of refining and through the roof installations from carbon content 0.5-0.7% to 0.1% during the smelting of steels 0.8kn, 10kn, and 2kn increased the hourly output of a furnace by about 9% with a decrease in fuel consumption of about 7%. The yield of steel decreases by about 1.5% due to a decrease in the consumption of ore during refining and increased iron losses, and the consumption of ferro-manganese increased by about 3kg/ton₂ of metal. The consumption of oxygen was about 5.5m³/ton of metal. Blowing oxygen into the bath decreases the durability of refractories. A decrease in the fume formation (by a factor of 4-5) and an improvement in the service life

Card 3/10 of refractories was obtained by decreasing the temperature

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Scientific - Research Works of the Zaporozhstal' Works.

of the reaction zone by adding water to oxygen. The output of the furnace increased by 20-25% and the consumption of fuel by 20-25% in comparison with normal smelting without oxygen. During blowing oxygen into the bath during melting and refining (up to a carbon content of 0.10%) the output of the furnace increased by 35-45% and fuel consumption decreased by 30%. The consumption of oxygen was $4\text{m}^3/\text{t}$ including $12-18\text{m}^3/\text{t}$ blown into the bath and the consumption of ore decreased by 4-5 tons (the blow starts 1 hour after the beginning of charging hot metal). The yield of steel decreased by 2.5% without any deterioration in the quality of the metal. E. Preliminary blowing of pig iron with oxygen-water mixture in transfer ladles. Supplying water together with oxygen considerably decreases the evolution of fumes. The temperature of pig increases by $50-90^\circ\text{C}$. The most efficient removal of admixtures was obtained on blowing for 60-80 min., silicon content decreased by 38-68%, manganese by 27-40%, sulphur by 12-30% and carbon by 8%. Water cooled tuyeres were immersed 100-150mm into the metal, oxygen supply - $12-15\text{m}^3/\text{min}$ at a pressure of 6-8 atm., water consumption $0.03-0.06\text{m}^3/\text{min}$ (pressure Card 4/106 atm.) i.e., about 6 l/t. The experiments are being

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Scientific-Research Works of the Zaporozhstal' Works.

continued. F. An investigation of rimming steel, deoxidised with ferromanganese in the ladle. The consumption of manganese on additions to the ladle for medium and low-carbon steels was 3.2 kg/ton as against 5.3 - 6.5 kg/ton when added to the furnace. The structure and mechanical properties of steel on deoxidation with ferromanganese in the ladle only remain unchanged. However, the time of addition and the size of ferromanganese are important for its uniform distribution in the metal. G. A decrease in the carbon content after melting of rimming steel. On smelting rimming steel 08^{mm} BFB with a decreased carbon content on the completion of the melting period (0.40-0.50% instead of 0.60%), the duration of the heat decreases by 10 min., specific fuel consumption decreases by 4 kg/ton, of iron ore by 4-5 tons and of lime by 1.5 tons per heat. The quality of the metal from experimental heats was satisfactory. H. Causes of the appearance of film defects on thin sheets. This defect is caused by small gas bubbles forming on the surface of crust of the ingots when the stream of metal during the initial stages of bottom pouring falls on to the crystallising crust.

Card 5/10 To prevent this the metal inlets into the ingot moulds

Scientific-Research Works of the Zaporozhstal' Works. 133-10-26/26

were redesigned. I. An increase in the throughput of furnaces for annealing of sheets. It was established that a decrease of the annealing temperature of cold rolled sheets of group G from 680 to 540°C and a decrease in the soaking period from 8 to 4 hours have no negative influence on the mechanical properties of sheets, while increasing the output of furnaces by 15% and that of large furnaces by 20%. J. Causes of lamination of steel 14X7S. In the majority of cases lamination defects were observed in sheets made from top and bottom parts of ingots. Non-metallic inclusions (alumino-silicates and alumina) were observed in the defective places. An increased percentage of defective sheets were obtained from the ingot cast last. A decrease in the amount of aluminium added to the ladle from 0.8 to 0.25 kg/t produced a sharp decrease in defective sheets, particularly with an increase in the temperature of metal on tapping from 1605-1615° to 1620-1630°C. Transverse rolling of slabs into sheets produces twice as many laminations as longitudinal rolling.

Card 6/10 K. Deoxidation of killed steel with ferromanganese in

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Scientific-Research Works of the Zaporozhstal' Works.

the ladle. In order to decrease the consumption of ferromanganese for the deoxidation of killed steel in three experimental heats of 3^{en} steel, half of the required manganese was added to the ladle during tapping. The chemical composition of all ingots from the first to the last cast remained unchanged indicating that ferromanganese was dissolved in the ladle and distributed uniformly in the metal. The investigation is being continued. L. Heating of hot tops with an application of oxygen. Optimum conditions for heating hop tops with oxygen with an application of a mixture protecting steel from oxidation were established. The investigation is being continued. M. Mastering of the production of alloy structural sheet steel. The technology of production of alloy structural sheets from steels 25^r, 09^r2 and 14^r2 under conditions of smelting in large capacity open hearth furnaces, teeming into large ingots and subsequent rolling on slabbing and continuous thin sheet mills was developed. N. Development of optimum profiling of rolls for a continuous thin sheet mill in order to improve the profile of alloy strip. Thermal conditions of the operation of rolling and backing rolls and their wear and longitudinal and

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Scientific-Research Works of the Zaporozhstal' Works.

transverse non-uniformity of the thickness of strip were investigated. Profiling of rolls of the finishing stand was recommended (no details given). O. Abrasive finishing of rolls. In co-operation with TsNIITMASH optimum conditions for polishing rolls using special apparatus designed by TsNIITMASH were established. Using polished rolls their durability is increased, the pressure of metal on rolls is decreased, power consumption is decreased and the surface of rolled products is improved. The latter is particularly important for stainless sheets with a polished surface. P. An investigation of the possibility of increasing the temperature in soaking pits when charging cold ingots of LX18H9T steel. It was established that increasing the temperature of pits to 1000-1300°C during charging cold ingots and up to 1300-1320°C during soaking improves the plasticity of metal without increasing metal losses. However, an increase in the ferritic phase was observed. Q. The development of the technology of production of non-ageing sheet steel (together with TsNI IChM). During the development of the technology of production of non-ageing cold rolled sheet from low

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Scientific-Research Works of the Zaporozhstal' Works.

carbon steel containing vanadium (0.8% ~~mm~~ BrB) for stamping complicated parts, it was established that ferrovanadium should be added after a preliminary deoxidation of metal in the ladle with carbon containing ferromanganese (2.0 kg/ton) and silicomanganese (0.7 kg/ton). As a result a good utilisation of vanadium (about 79%) is obtained. Sheets produced had a good stamping quality. R. Improvement in the production of tinned sheets. It was established that a sharp fall in plasticity of tinned sheets is caused by the saturation of metal by hydrogen during pickling before hot tinning. Additions of 4-5% of sodium chloride decrease the fall in plasticity. Preheating of strip to 150-200°C (for 10 sec) before hot tinning increases its plasticity (by 3-8 bends). Increasing the degree of reduction up to 60% also increases the plasticity of tinned strip. Together with TsNIICChM an experimental lot of tinned strip (0.20 mm thick) was produced. S. An increase in the durability of slabbing guillotine. The technology of manufacturing cutting knives from defective slabs of steels 25X7C and 30X7C (occasionally from 23X2HB~~8~~ and 12X5M) was developed. The durability of knives increased 3 times (on

Card 9/10 average up to 18-20 days).

Scientific-Research Works of the Zaporozhstal' Works. 133-10-26/26

ASSOCIATION: Zaporozhstal' Works. (Zavod Zaporozhstal').

AVAILABLE: Library of Congress

Card 10/10

AUTHOR: Chub, G.F.

SOV/133-58-10-7/31

TITLE: At the "Zaporozhstal'" Works (Na zavode "Zaporozhstal'")

PERIODICAL: Stal', 1958, Nr 10, p 884 + 2 plates (USSR)

ABSTRACT: 1) The development of the technology of production of fluxed sinter of a basicity above 1.0 and an investigation of the operation of a blast furnace burdened with this sinter (in co-operation with Dnepropetrovskiy metallurgicheskii institut - Dnepropetrovsk Metallurgical Institute). It was established that the maximum output of sinter is obtained when its basicity is maintained at 0.9; with basicity increasing to 1.3 the output of sinter decreases by 16.6%. Size distribution of the high-basicity sinter was unsatisfactory. When using this sinter in the burden of Nr 1 furnace (proportion not stated), the coke rate decreased by 8.9% (from yearly average of 8.8 kg/t to 745 kg/t). It was established that there are two possible methods of operating blast furnaces: a) with a high intensity of driving with an increased coke rate and b) with a moderate intensity of driving with a decreased coke rate.

Card1/3 2) Mastering of the operation of a vibrating screen with

At the "Zaporozhstal'" Works

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an improvement of the separation of return fines as well as the quality and the output of sinter (in co-operation with the Mekhanobr Institute).

As a result of testing a vibrating screen of the 85-TS type with various types of screening mats and various angles of inclination, optimum size of the screening plant was established. Plant throughput: 130 t/h, screening efficiency 80%. The plant consists of four cascades of screens with increasing size of openings from 2 to 9 mm. Cross-sectional area of opening - 19%.

3) Automatic control of the operation of blast furnaces based on the variation of static pressure along the furnace height (in co-operation with DMI and TsLA).

Experimental operation of a blast furnace automatically controlled by the pressure drop along the height of the furnace indicated that a satisfactory control could be maintained only when tightening of the burden column in the bottom part of the furnace takes place (no details given).

4) An investigation of the parameters reflecting the thermal state of the bottom part of a blast furnace and an experimental study of the dependence of the work of gases

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At the "Zaporozhstal'" Works

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in the stack on operating conditions of the hearth and the charging cycle (in co-operation with DMI and TsLA). A blast furnace was equipped with immersion thermocouples for measuring the temperature of metal and upper slag of the outlets and with radiation pyrometers on tuyères Nos 4, 6 and 13. In addition, six thermocouples were placed for measuring the temperatures of peripheral gases at points corresponding to stops of the charge distributor. It was found that the pyrometers measure only relative temperature of the combustion zone, satisfactorily reflecting temperature changes in this zone. A preliminary dependence between the slag and metal temperatures and between silicon content and metal temperature was established (no details given). The work is being continued.

Card 3/3

AUTHOR: Chub, G.F.

SOV/133-58-10-13/31

TITLE: At the "Zaporozhstal'" Works (Na zavode "Zaporozhstal'")

PERIODICAL: Stal', 1958, Nr 10, p 906 (USSR)

ABSTRACT: 1) Intensification of the process of smelting steel by the application of oxygen (in co-operation with TsNIICHM). In order to decrease the loss of metal in slag and the consumption of ferromanganese for deoxidation when oxygen is supplied to the flame and to the bath, it was necessary to increase the penetration of oxygen blast deeper into the metal bath. This was achieved by using a new type of nozzle (TsNIICHM-4) for the water-cooled tuyere supplying oxygen to blast (no details given). However, in some heats the content of FeO in the slag before deoxidation amounted to 18%. In order to obtain slag of normal composition (about 16% FeO) it was found necessary to stop the oxygen supply to the bath at a carbon concentration 0.02% higher than that before deoxidation. The consumption of oxygen blown into the bath - 5.5 m³/ton. The increase in output and decrease in fuel consumption amounted to 4-5%.

2) A method of direct oxidation of the bath with an oxygen/water mixture.

Card1/5

Experimental heats of steels 08kp - 10kp in which an oxygen/

At the "Zaperozhstal'" Works

SOV/133-58-10-13/31

water blast was used for the oxidation of the bath were carried out. The blast was supplied during melting and refining (1 - 1.5 hours after the addition of hot metal) up to the deoxidation (approximately to 0.09% C). Water was added to oxygen from the beginning of blowing to the attainment of a carbon concentration of 0.4 - 0.6%. In comparison with heats in which oxygen was supplied, only during refining, the output increased and the consumption of fuel decreased by about 6-8%; in comparison with heats in which oxygen was supplied only to the flame the output increased by 10-14%.

3) The effect of applying oxygen diluted with air. The use of oxygen diluted with air up to a concentration of 70% has no practical influence on the duration of heat when blowing it into the bath during refining from a carbon content of 0.5%, as established by practice. The duration of blowing of diluted oxygen increases with increasing carbon content.

4) A study of the durability of various parts of open-hearth furnaces operating with oxygen-enriched air and blowing oxygen into the bath.

In 1956, the stability of chrome-magnesite roofs of three

Card2/5

At the "Zaporozhstal'" Works

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open-hearth furnaces operating with oxygen blown into the bath amounted on average to 375 heats. As a result of an improvement in the oxygen-blowing equipment in 1957, the life of roofs increased on average to 463 heats. The durability of front and back walls, regenerators and slag pockets of furnaces operating with oxygen blown into the bath (through the roof) is lower than those supplied with oxygen to the flame only.

5) Mastering of the technology of production of weakly ageing steel for deep drawing (in co-operation with TsNIICM).

Heats of steel deoxidised with aluminium in the ladle (1.6 - 1.9 kg/t) and bottom-poured; deoxidised with aluminium shot (0.8 - 0.9 kg/t) in ingot moulds top-poured and deoxidised with aluminium shot in the central funnel and bottom-poured were investigated. In view of continuous rolling of sheets without dressing slabs an increased proportion of defective cold-rolled sheets (due to films) was obtained from steel deoxidised in the ladle. Physical properties of these sheets were found to be satisfactory.

Card3/5

6) A study of causes of formation of films on the surface

At the "Zaporozhstal'" Works

SOV/133-58-10-13/31

of cold-rolled sheets from rimming steels 08-10kp. It was established that the above films are caused by bubbles in the surface crust of ingots, unsatisfactory state of the internal surface of ingot moulds and their dense coatings.

7) An improvement of the technology of production of killed steel 08kp with a lower carbon content after melt-out.

It was established that sheet steel from heats containing after melt-out 0.4-0.5% of carbon does not differ in quality from steel from heats containing 0.6-1.1% of carbon after melt-out. The above decrease of carbon content after melt-out shortened the duration of heats by 10 minutes and decreased the consumption of raw materials.

8) An improvement of the technology of production of killed steel in large ingots.

As a result of studies of the quality of killed steel teemed into 16-18 ton ingots, the technology of its smelting and teeming was established. The main forms of defects of ingots are transverse and longitudinal cracks.

Card4/5

At the "Zaporozhstal'" Works

SOV/133-58-10-13/31

9) An increase in the durability of open-hearth roofs. An experimental roof, made from bricks manufactured on the Zaporozh'e Refractory Works has a good durability of 558 heats, half of which was carried out with blowing oxygen into the bath. Bricks were made from crushed magnesite-chromite and chrome-magnesite bricks with an addition of magnesite.

Card 5/5

AUTHOR: Chub, G.F.

SOV/133-58-10-21/31

TITLE: At the Zaporozhstal' Works (Na zavode "Zaporozhstal'")

PERIODICAL: Stal', 1958, Nr 10, p 930 (USSR)

ABSTRACT: 1) Optimum conditions for heating large ingots (in co-operation with DMI).
Rational conditions for heating large ingots of various steels before the slabbing mill were established (no data given).
2) An improvement in the manufacture of hot tinned sheets. The following problems were investigated: a) improvement of the surface of sheets by polishing rolls of a cold-rolling mill; b) decreasing the consumption of tin by prevention of the formation of tin-iron compounds. This was achieved by adding to the tinning bath of a chlorinated additive ChM and potassium chloride to the flux; c) choosing an optimum lubricant for cold rolling (products of processing sunflower oil); and d) causes of widespread defect on black sheets - "grey spots" (in co-operation with

Card 1/2

At the Zaporozhstal' Works

SOV/133-58-10-21/31

the Institut ispol'zovaniya gaza AN UkrSSR (Institute of Utilisation of Gas of the AS, Ukrainian SSR). It was established that this defect represents an oxide film formed during the annealing of sheets in the presence of the residual oxygen in the protective gas and an increased humidity. The defect was removed by increasing the temperature of combustion in the installation producing protective gas from 1100 to 1200-1300 °C.

Card 2/2

AUTHOR: ~~Chub, G.F.~~

SOV/133-58-10-31/31

TITLE: At the "Zaporozhstal'" Works (Na zavode "Zaporozhstal'")

PERIODICAL: Stal', 1958, Nr 10, p 959 (USSR)

ABSTRACT: An improvement in the technology of production of parts of metallurgical equipment and an increase in their durability. Testing of ingot moulds with convex wide faces was carried out. Some types of these moulds gave positive results - others negative (no details). It was established that the durability of two-trough ingot mould bottoms is higher than that of single-trough ones. Stamped plates from steel 90Kh for crushing limestone were found to be more durable than cast hammers from steels G13L. Automatic welding of elements of steel ladles of a capacity up to 230 tons was developed.

Card 1/1

18.5100,18.7100

77462

SOV/133-60-1-23/30

AUTHORS: Petrenko, A. G., Kurtova, L. A., Chub, G. F., Ioffe, M. M., Popov, B. N., Sterlin, R. L. (Engineers)

TITLE: Physical Metallurgy and Heat Treatment. The Effect of Intermediate Annealing in Hydrogen on Specific Losses of Cold-Rolled Transformer Steel

PERIODICAL: Stal', 1960, Nr 1, pp 71-73 (USSR)

ABSTRACT: This is a brief report concerning the experimental production that proposed to establish the possibility of decreasing carbon content in the transformer steel. The intermediate annealing in bell furnaces (with protective atmosphere of DKh-gas--a mixture of coke and blast furnace gas) was replaced by annealing in tunnel-type furnace and bell furnace with the protective atmosphere of dry hydrogen. M. I. Veklich, V. Ye. Spiridonov, G. G. Kuznetsov, and G. N. Novikov participated in the work. The investigated steel had following chemical composition: C, 0.02-0.04; Mn, 0.08-0.14; Si, 2.90-3.26; P, 0.004-0.007; S, 0.005; Cu, traces-

Card 1/6

Physical Metallurgy and Heat Treatment.
The Effect of Intermediate Annealing in
Hydrogen on Specific Losses of Cold-Rolled
Transformer Steel

77462

SOV/133-60-1-23/30

0.08; Ni, 0.03-0.15. The results of tests of steel under various conditions are given in Tables 1, 2, and 3. The authors arrived at the following conclusions. (1) The application of double decarburization annealing of the strip 0.85-0.70 and 0.50-0.35 mm thick in a tunnel-type furnace in hydrogen atmosphere facilitates the production of steel with lower carbon content and smaller specific losses than in the case of intermediate annealing of steel in bell furnaces in DKh-gas atmosphere. (2) The cold-rolled transformer steel of investigated melts, which passed the double intermediate annealing in the tunnel-type furnaces in the atmosphere of dry hydrogen (and after high-temperature annealing of sheets in the vacuum and additional annealing for elimination of work-hardening), has magnetic induction B_{25} from 18,700 to 19,300 gauss, and specific losses for sheets 0.50 mm thick P_{10} from 0.80 to 0.84 and P_{15} from 1.72 to 1.86 watt/kg, and for sheets 0.35 mm thick P_{10} from

Card 2/6

77462, SOV/133-60-1-23/30

Table 1. Electric and magnetic properties of cold-rolled transformer steel, which passed through the intermediate annealing in bell furnace in DKh-gas atmosphere (A) and in tunnel furnace in hydrogen atmosphere (B).

THICKNESS OF STRIP(MM)	Nr OF MELTS	A								Nr OF MELTS	B							
		SPECIFIC LOSSES (WATT/KG)			MAGNETIC INDUCTION (GAUSS)						SPECIFIC LOSSES (WATT/KG)			MAGNETIC INDUCTION (GAUSS)				
		P ₁₀	P ₁₅	P ₂₀	B ₁₀	B ₁₅	B ₂₀	B ₂₅	P ₁₀		P ₁₅	P ₂₀	B ₁₀	B ₁₅	B ₂₀	B ₂₅		
0,50	26422	1,07	2,31	3,19	17000	18430	19300	19750	26422	0,97	2,06	2,77	17900	18900	19500	19900		
	26004	1,02	2,12	3,09	16990	18350	19050	19550	26004	0,91	2,00	2,76	17900	18950	19500	19850		
	25955	0,97	2,10	2,88	17350	18770	19350	19800	25955	0,89	1,95	2,70	18000	18800	19450	19850		
	AVERAGE	1,02	2,18	3,06	17110	18520	19230	19700	AVERAGE	0,92	2,00	2,74	17930	18880	19480	19870		
0,35	26488	0,80	1,72	2,35	18200	18800	19450	19850	26347	0,67	1,45	1,94	18000	18700	19350	19700		
	25010	0,78	1,08	2,26	18700	19100	19550	19950	26391	0,76	1,61	2,13	18300	19000	19500	19850		
	26847	0,82	1,85	2,57	17400	18100	18700	19300	26367	0,69	1,50	2,04	17300	18800	19450	19850		
	26965	0,73	1,48	1,95	19000	19300	19700	20100	26469	0,68	1,43	1,94	18300	19050	19600	19800		
	26106	0,79	1,80	2,47	17200	18300	18850	19450	25803	0,67	1,37	1,80	18200	19000	19400	19750		
	27142	0,81	1,72	2,35	17800	18700	19250	19750	25906	0,71	1,49	1,98	18600	19000	19500	19800		
	27040	0,70	1,68	2,32	18200	18600	19300	19800	26416	0,70	1,64	2,08	18600	19000	19550	19850		
	26847	0,70	1,49	2,00	18700	19300	19800	20150	26740	0,72	1,50	1,98	18200	18950	19450	19800		
	AVERAGE	0,77	1,68	2,28	18150	18770	19320	19790	AVERAGE	0,70	1,48	1,98	18180	18930	19470	19800		

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77462, SOV/133-60-1-23/30

Table 2. Electric and magnetic properties of annealed (in tunnel furnace in hydrogen atmosphere) cold-rolled transformer steel after addition annealing.

THICKNESS OF STRIP (MM)	No OF SHEETS	SPECIFIC LOSSES (WATT/KG)			MAGNETIC INDUCTION (GAUSS)			
		P_{10}	P_{15}	P_{17}	B_{10}	B_{15}	B_{17}	B_{100}
0.50	26422	0.84	1.86	2.52	17800	19150	19650	19950
	26004	0.80	1.72	2.42	18300	19000	19550	19900
	26935	0.83	1.80	2.53	18100	19000	19550	19900
	AVERAGE	0.83	1.79	2.49	18050	19050	19580	19915
0.36	26347	0.57	1.22	1.63	18300	19000	19800	19950
	26391	0.66	1.41	1.93	18200	19100	19700	20000
	26367	0.64	1.40	1.99	18400	18700	19300	19700
	26169	0.63	1.31	1.80	18600	19300	19750	19950
	26803	0.62	1.29	1.69	18300	19300	19600	19850
	26903	0.60	1.25	1.67	18600	19100	19600	19900
	26416	0.66	1.41	1.92	18500	19000	19500	19900
	26740	0.65	1.39	1.83	18700	19050	19500	19760
	AVERAGE	0.63	1.33	1.82	18450	19060	19580	19870

Card 4/6

77462, SOV/133-60-1-23/30

Table 3. Electric and magnetic properties of cold-rolled transformer steel, which passed through the intermediate and final high-temperature annealing in coils in bell furnace in the atmosphere of dry hydrogen.

THICKNESS OF STRIP MM	MELTS	SPECIFIC LOSSES WATT/KG			MAGNETIC INDUCTION GAUSS			
		P ₁₀	P ₁₅	P ₂₀	B ₁₀	B ₁₅	B ₂₀	B ₂₅
0.50	26422	1.01	2.14	2.92	17700	19000	19650	19950
	26004	0.96	2.06	2.82	18400	19200	19700	19950
	25955	0.98	2.14	2.95	17900	19050	19700	20000
	AVERAGE	0.97	2.11	2.89	18000	19080	19680	19970
0.35	26347	0.82	1.69	2.33	17900	18400	19000	19600
	26367	0.66	1.44	1.96	18800	19200	19700	20100
	25955	0.73	1.67	2.30	17650	18050	18900	19500
	26469	0.68	1.46	1.99	18600	19100	19650	19900
	25803	0.69	1.46	1.96	18600	19200	19700	20000
	25906	0.80	1.67	2.20	17900	18550	19200	19700
	26416	0.68	1.50	2.02	18800	19150	19650	19950
	25710	0.68	1.50	2.01	18750	19050	19550	19850
	AVERAGE	0.71	1.55	2.08	18370	18840	19420	19810

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Physical Metallurgy and Heat Treatment.
 The Effect of Intermediate Annealing in
 Hydrogen on Specific Losses of Cold-Rolled
 Transformer Steel

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SOV/133-60-1-23/30

0.57 to 0.66 and P_{15} from 1.22 to 1.41 watt/kg. (3)

For manufacturing of higher grades of transformer steel according to the All-Union State Standard 802-58 (GOST 802-58) it is advisable to build at the metallurgical plants the tunnel-type furnaces, which assure the most intensive decarburization (heating in dry hydrogen, holding in humid, reaching the strip (counter to its movement) on both sides by hydrogen). The intermediate annealing in the tunnel-type furnace, with tension of heated (to 750-800° C) strip, results also in the diminishing of its waviness and warping. There is 1 figure; 3 tables; and 2 Soviet references.

ASSOCIATION:

Central Scientific Research Institute of Ferrous Metallurgy and the "Zaporozhstal'" and "Electrostal'" Plants (TsNIICHM i zavody "Zaporozhstal'" i "Elektrostal'")

Card 6/6

CHUB, G.F.

Research by plant laboratories in 1959. Stal' 20 no.6:495 Je '60.

(MIRA 14:2)

(Zapovednyy Sintering)

TOKAR', I.K.; CHAMIN, I.A.; Prinimali uchastiye: BOYKO, M.V.; CHUB, G.F.;
GAMERSHTEYN, V.A.; YASHNIKOV, D.I.; FILONOV, V.A.; TROSHCHENKO,
N.A.; SAMOYLOV, I.D.; ZAYTSEV, V.V.; KOLOMATSKIY, V.D.

Efficient lubrication for the rolling of thin sheet iron.

Metallurg 6 no.8:22-24 Ag '61.

(MIRA 14:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Tokar', Chamin, Zaytsev, Kolomatskiy). 2. Zavod "Zaporozhstal'" (for Boyko, Chub, Gamershteyn, Yashnikov, Filonov, Troshchenko, Samoylov).
- (Metalworking lubricants) (Sheet iron)

CHUB, G. G. and SIGOMOV, P. K.

"Crystalviolet vaccina of hog cholera in shorted doses."

Veterinariya, Vol. 37, No. 10, 1960, p. 40

Vet. Dr., Galeshchinskoy Biyabriti

SIZONOV, P.K., veterinarnyy vrach; CHUB, G.G., veterinarnyy vrach

Reduced doses of crystal violet vaccine against hog cholera.

Veterinariia 37 no.10:40 0 '60.

(MIRA 15:4)

1. Galeshchinskaya biofabrika.

(Hog cholera) (Vaccination)

ACC NR: AP7004721

(A)

SOURCE CODE: UR/0413/67/000/001/0005/0005

INVENTOR: Orro, P. I.; Savin, G. A.; Savchenko, O. N.; Chub, I. M.; Kuznetsov, Ye. D.

ORG: None

TITLE: A method for drawing steel tubes on a long mandrel. Class 7, No. 189788

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 5

TOPIC TAGS: pipe, metalworking, metal drawing

ABSTRACT: This Author's Certificate introduces a method for drawing steel pipes on a long mandrel. Productivity is increased and provision is made for extraction of the mandrel from the tube after completion of the drawing process without rolling by drawing the tubes simultaneously through two plates--a working plate and an auxiliary plate located directly behind the working plate.

SUB CODE: 13/ SUBM DATE: 29Jun63

Card 1/1

UDC: 621.774.372

FILAKHTOV, A.L., kand.tekhn.nauk; CHUB, I.S., inzh.; YANKULIN, M.G., inzh.

Using production-line methods in constructing distribution units
of the power house of the Kremenchug Hydroelectric Power Station.
Gidr.stroi. 30 no.8:9-12 Ag 60. (MIRA 13:8)
(Kremenchug Hydroelectric Power Station)
(Precast concrete construction)

FILAKHTOV, A.L., kand.tekhn.nauk; SAPIR, I.L., inzh., CHUB, I.S.,
inzh., YANKULIN, M.G., inzh.

Use of concreted fagot trusses in the wall of the spiral
casing of turbines at the Kremenchug Hydroelectric Power
Station. Gidr. stroi. 30 no.9:6-9 S '60. (MIRA 13:9)
(Kremenchug Hydroelectric Power Station--
Precast concrete construction)

NEDODAYEV, A.: CHUB, K.

Reserves of knowledge. Voen. znan. 41 no.4:19 Ap '65. (MIRA 18:3)

1. Zamestitel' nachal'nika upravleniya TSentral'nogo komiteta
Obshchestva Krasnogo Kresta RSFSR (for Nedodayev).

CHUB, M.

Over 750 thousand cement-and-sand tiles. Sil'. bud.11 no.5:21-22
My '61. (MIRA 14:6)

1. Glavnyy inzh. Kamenets-Podol'skogo mezhkolkhozstroya.
(Ukraine--Tiles)

CHUB, M.

Let's build rhythmically the year round. Sil'. bud.
12 no.11:5-6 N '62. (MIRA 15:12)

1. Glavnyy inzh. Kamenets'-Podol'skoy mezhkolkhoznoy
stroitel'noy organizatsii Khmel'nitskoy oblasti.
(Kamenets-Podol'skiy District—Construction industry)
(Collective farms—Interfarm cooperation)

CHUB, M. P.

CHUB, M. P.: "The agrophysical principles of moisture-charging irrigation of winter wheat in the trans-Volga region." All-Union Order of Lenin Acad of Agricultural Sciences imeni V. I. Lenin. Agrophysics Sci Res Inst. Leningrad, 1956.
(Dissertation for the Degree of Candidate in Agricultural Sciences).

SO: Knizhnaya letopis', No 23, 1956

CHUB, M.P., kand. sel'skokhoz. nauk; YEGOROV, A.V.

The Southeast. Zemledelie 27 no.9:77-79 S '65.

(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut sel'skogo khozyaystva
Yugo-Vostoka.

CHUB, M.T., uchitel'

~~CHUB, M.T., uchitel'~~
Inculcating materialistic views in students during work on the
school experiment plot. Biol.v shkole 6:38-40 N-D '58.

(MIRA 11:11)

1. Shkola No.127, g. Khar'kov.

(Agriculture—Study and teaching)

CHUB, M. V.

CHUB, M. V.: "The conditions of growth, development, and harvest yield of grain crops in the steppe regions of the Ukrainian SSR under irrigation." Min Higher Education Ukrainian SSR. Khar'kov Order of Labor Red Banner Agricultural Inst imeni V. V. Dokuchayev. Khar'kov, 1956. (Dissertation for the Degree of Candidate in Agricultural Science)

Source: Knizhnaya letopis'

No. 28 1956

Moscow

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53551

Author : Chub, M.V.

Inst : Poltava Agricultural Institute

Title : Formation of the Spring Wheat Crop in the Steppe Regions of the Ukraine with Irrigation.

Orig Pub : Nauchn. tr. Poltavsk. s.-kh. in-t, 1956 (1957), 5, 210-215

Abstract : Experiments were conducted on the irrigated area of the Ukraine Experimental and Research Irrigation Station (Zaporozh'skaya Oblast') in 1954 and 1955 on the Narodnaya wheat variety. The character of the spike and spring wheat formation during irrigation reflects accurately enough the degree of water supply. Under conditions where better moisture is supplied with artificial

Card 1/2

USSR/Cultivated Plants - Grains

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53551

irrigation, wheat forms spikes showing great potential possibilities of a high yield. In drought years, it is recommendable to carry out vegetation watering in addition to the moisture-charging irrigation. -- Ye.I. Saks

Card 2/2

- 14 -

L 18726-66 EWT(m)/ENP(j) DS/RM	
ACC NR: AP6005090 (A)	SOURCE CODE: UR/0251/65/040/003/0607/0612
AUTHOR: <u>Nogaydeli, A. I.; Dzhaparidze, K. G.; Brodzeli, M. I.; Davadze, L. V.;</u> <u>Maysuradze, D. P.; Kertsman, E. L.; Chubabriya, M. Ya.</u>	
ORG: none	50 8
TITLE: <u>Synthesis and certain photochemical properties of 7-nitro-1', 3', 3'-trimethyl-spiro-naphthopyran- 2,2'-indoline</u>	
SOURCE: AN GruzSSR. Soobshcheniya, v. 40, no. 3, 1965, 607-612	
TOPIC TAGS: photoeffect, spiropyran compound, UV irradiation, spectrophotometry, cryogenic effect / 7-nitro-1', 3', 3'-trimethyl-spiro-naphthopyran- 2,2'-indoline	
ABSTRACT: On the assumption that the change in color on heating of 1', 2', 3'-trimethyl-indoline- β -naphthopyrilo-spiran, a substance synthesized by Wizinger and Wenning in 1940 (Helv. Chem. Acta, v. 23, 1940, 247) is associated with the splitting of the pyran cycle and hence also with a change in internal configuration and redistribution of bonds in the molecule, and in view of the importance of this problem, the authors synthesized yet another representative of nonsymmetric spiropyrans, namely, 7-nitro-1', 3', 3'-trimethyl-spiro-naphthopyran- 2,2'-indoline (yellowish acicular crystals) through condensation of 8 g of Fisher's base with 8 g of 6-nitro-2-oxy- β -naphthaldehyde (Fig. 1) by heating to 60°C for 1 hr, thus obtaining a thermo-	
Card 1/3	

W 38726-66
ACC NR: AP6005090

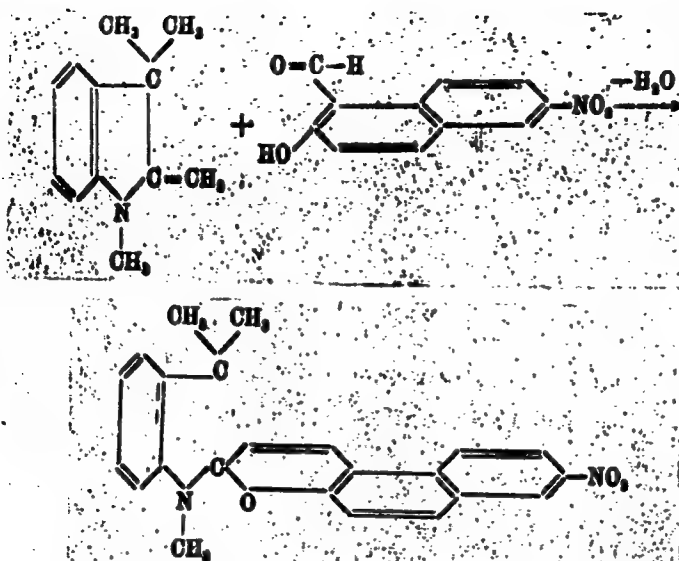


Fig. 1.

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L 18726-66
ACC NR: AP6005090

chromic compound which, in a ligroin solution, is colorless at room temperature but acquires a purple color when heated to 100-150°C. The photochromic properties of this new spironpyran were investigated in a specially designed cryostat (attachment to an SF-10 spectrophotometer). The investigation was performed in liquid (paraffin oil and a mixture of ethanol and methanol in the mutual ratio of 4:1) and solid (polystyrene-ethyl cellulose) solutions. Findings: ultraviolet irradiation at room temperature does not change the color of solution. A reduction in temperature to -10°C in the liquid solution, however, along with a subsequent brief irradiation with $\lambda = 366 \text{ m}\mu$ causes the solution to acquire a purple color. A peak in the 580 m μ region appears in the absorption spectrum. The process is reversible with time. At still lower temperatures (-90 to -100°C), on the other hand, the process becomes irreversible so long as these temperatures apply. Increasing the temperature instantaneously restores the original pale-yellow color. Orig. art. has: 5 figures, 2 formulae.

SUB CODE: 03, 07, 20/ SUBM DATE: 06Jul65/ ORIG REF: 000/ OTH REF: 007

Card 3/35m

CHUB, N. G.

Drying Apparatus--Lumber

Increase in the productive capacity of a steam drying kiln. Prom. energ., No. 1, 1952

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

CHUB, N.G.

Removal of boiler-scales by ultrasonic waves. Spirt.prom. 27
no.4:37-38 '61. (MIRA 14:6)

(Boilers—Incrustations)

(Ultrasonic waves—Industrial applications)

CHUB, N.G.

Reduction of heat loss by aluminum painting of equipment.
Med. prom. 15 no.6:54 Je '61. (MIRA 15:3)

1. Saranskiy zavod meditsinskikh preparatov.
(INSULATION (HEAT)) (ALUMINUM COATING)

CHUB, N. I., (Veterinary Surgeon, Markakol'sk Raion, East-Kazakh stan Oblast')

Eradication of the foot-and-mouth disease

Veterinariya vol. 38, no. 10, October 1961, pp. 81-89

5(3)

SOV/79-29-9-40/76

AUTHORS: Chub, N. K., Simonov, A. M.

TITLE: On Bipolar Ions Forming in the Separation of a Proton From the NH-Group. XIII. Compounds of the Stilbene Series

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2988 - 2992 (USSR)

ABSTRACT: A. M. Simonov and M. N. Okorokova (Ref's 1 and 2) showed that the onium salts of the structure (I), where R denotes an electrophilic group, are transformed into bipolar ions of structure (II) under the action of alkalies by separation of a proton from the NH-group (Scheme 1). The formation of such bipolar ions proceeds easily only if the electrophilic character of the radical R is sufficiently high. If it is weak, the effect of the other electrophilic radical, of the benzene ring to which the onium atom is bound and which is connected with the NH-group, is not sufficient for a "beta-inization". To investigate the rules, onium salts of structure (III) were synthesized in which the onium-N-atom and the imine group are linked to the stilbene cycle (Table 1) and the conditions of transformation of these salts into bipolar ions

Card 1/3

On Bipolar Ions Forming in the Separation of a Proton 507/79-29-9-40/76
From the NH-Group .XIII: Compounds of the Stilbene Series

were determined (IV). In contrast to theoretical considerations, the introduction of the stilbene group into the molecule instead of the benzene ring has a rather weak effect upon the "betainization" of these salts. Just like the similar onium salts of the benzene series the salts of the stilbene series (III) with one acetyl- or benzoyl radical are not transformed into betaine compounds under the action of alkalies upon their aqueous-alcoholic solutions. It was also not possible to transform the onium salts (III), in which R denotes a benzene sulfonyl group, into bipolar ions by means of this method. The synthesized bipolar ions of the stilbene series (Table 2) are strongly red, crystalline compounds which are soluble in diluted mineral acids and acetic acid, and insoluble in apolar solvents. Thus, quaternary ammonium salts of the stilbene series containing an RNH-group (R=acetyl or aryl) were synthesized on the basis of 4-amino-4'-dimethylamino stilbene. There are 3 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Donu
Card 2/3 State University)

On Bipolar Ions Forming in the Separation of a Proton SOV/79-29-9-40/76
From the NH-Group .XIII. Compounds of the Stilbene Series

SUBMITTED: July 31, 1958

Card 3/3

SIMONOV, A.M.; CHUB, N.K.; MAGAK'YAN, N.V.

Bipolar ions forming when a proton splits off an NH-group. Part
15: Sulfonium compounds containing an acylamino group in the ortho
position with respect to the onium atom. Zhur.ob.khim. 30 no.8:
2680-2684 Ag '60. (MIRA 13:8)

1. Rostovskiy gosudarstvennyy universitet.
(Sulfonium compounds)

SIMONOV, A.M.; CHUB, N.K.

Bipolar ions forming when a proton splits off an NH-group.

Part 16: Rearrangement of bipolar ions of the stilbene series.

Zhur.ob.khim. 30 no.10:3386-3389 0 '61.

(MIRA 14:4)

1. Rostovskiy gosudarstvennyy universitet.
(Stilbene)

CHUB, N.K.; SIMONOV, A.M.

Bipole ions formed in the splitting off proton from the NH group.

Part 17: Transformations of some benzylbetaines by heating.

Zhur.ob.khim. 32 no.3:714-718 Mr '62.

(MIRA 15:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

(Betaine)

S/062/63/000/003/002/018
B101/B186

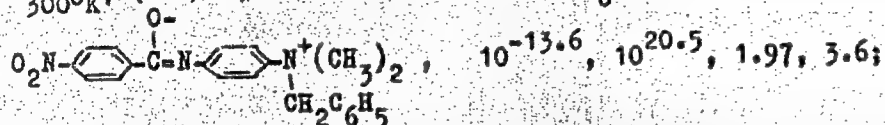
AUTHORS: Parini, V. P., Simonov, A. M., Frankevich, Ye. L., and Chub, N. K.

TITLE: Electrophysical properties of some aromatic betaines

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 3, 1963, 446 - 450

TEXT: Considering a possible use as organic semiconductors, the electrical conductivity of fine-crystalline betaines which had been pressed to tablets at 10,000 kg/cm², was measured between 20 and 160°C, the potential difference being 500 v. The temperature dependence of the conductivity obeyed the law $\sigma = \sigma_0 \exp(-E/kT)$. The following are formulas of the compounds

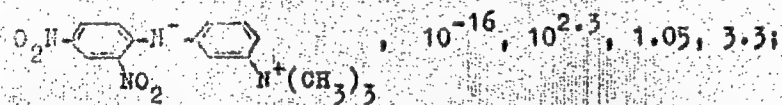
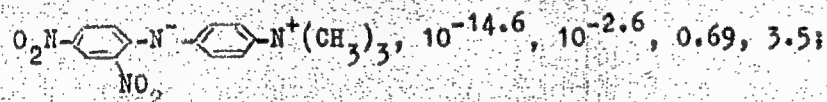
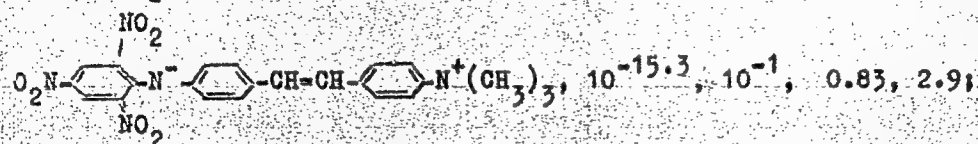
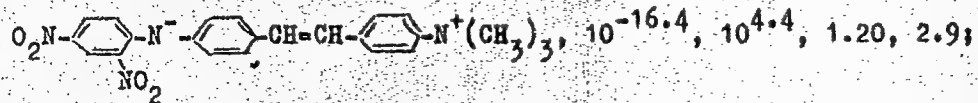
$\sigma_{300^\circ K}$ (mho/cm) with their respective σ_0 (mho/cm), E (ev) and ϵ :



Card 1/4

Electrophysical properties of ...

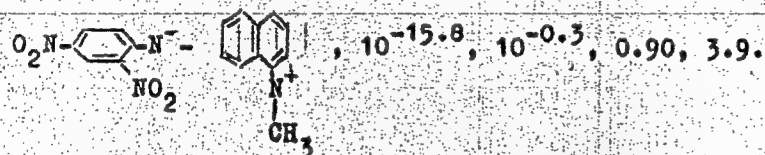
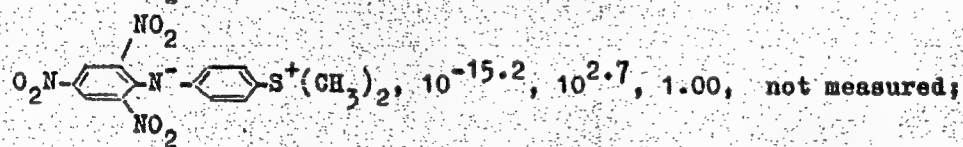
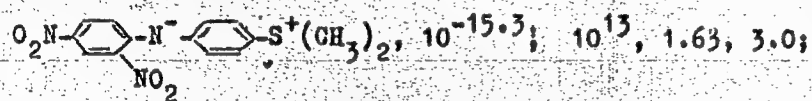
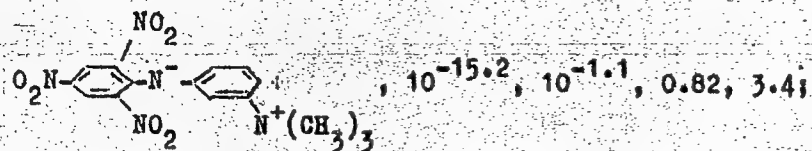
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B101/B186



Card 2/4

Electrophysical properties of ...

S/062/63/000/003/002/018
B101/B186



Card 3/4

Electrophysical properties of ...

S/062/63/000/003/002/018
B101/B186

Owing to the charge localized in the molecules, which is provisionally given in the formulas, ϵ is higher than in other organic compounds. It may be expected that the electrophysical properties of the betaines will be considerably changed by conjugation between the atoms carrying the charge. There is 1 table.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR); Rostovskiy-na-Donu gos. universitet (Rostov-na-Donu State University)

SUBMITTED: June 8, 1962

Card 4/4

CHUD) V. F.
YAMKOVY, G.T., inzh.; DYDZINSKIY, V.V., inzh.; PETRENKO, N.S., inzh.;
CHUB, V.F., inzh; MIKHAYLOV, Yu.I., inzh.

Technical progress in the mining industry. Mekh. trud. rab. 11
no.12:12-15 D '57. (MIRA 11:3)
(Mining machinery)

BELILOVSKIY, Yefim Solomonovich; BOGUSLAVSKIY, Eduard Yelizarevich;
BINUS, Mark Semenovich; VOLODIN, Aleksey Pavlovich; KUNIN,
Iziaslav Kopelovich, SELEKTOR, Spartak Mikhaylovich; CHUB,
Vasilii Fedoseyevich; YAMKOVY, Grigoriy Tikhonovich; DMITRIYEV,
A.P., otv. red.; KOVAL', I.V., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Improvement of underground mining methods and equipment in the
Krivoy Rog Basin] Sovershenstvovanie tekhniki i tekhnologii pod-
zemnoi dobychi rudy v Krivorozhskom basseine. [By] E.S. Belilov-
skii i dr. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu
delu, 1961. 238 p. (MIRA 15:3)

(Krivoy Rog Basin—Iron mines and mining)
(Automatic control)

CHUB, V.F.; KOVAL', G.L.

Testing the PBS-8 boring unit. Ugol' Ukr. 4 no.3:44-45 Mr '60.
(MIRA 13:6)

(Boring machinery--Testing)

CHUB, V.F., inzh., KOVAL', G.L., inzh.

The PBS-8M universal drilling unit. Mekh.i avtom.proizv. 14 no.5:38-
40 M '60.

(MIRA 14:2)

(Rock drills)

BERESLAVETS, F.G., kand.tekhn.nauk; CHUB, V.F., gorn.inzh.

Results of comparative testing of rock drills. Gor.
zhur. no.8:55-62 Ag '60. (MIRA 13:8)

1. Nauchno-issledovatel'skiy gornorazvedochnyy institut,
Krivoy Rog.
(Rock drills--Testing)

GIRIK, A.G., inzh.; CHUB, V.F., inzh.

Portable gas welding unit. Bezop.truda v prom. 5 no.4:27 Ap
'61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy gornorudnyy institut.
(Gas welding and cutting)

LOZOVY, Yu.I., kand.tekhn.nauk; CHUB, V.F., inzh.

Reinforcing reinforced concrete clorestory frames with
prestressed struts. Stroi.konstr. no.1:68-73 '65.

(MIRA 19:1)

1. L'vovskiy politekhnicheskii institut.

CHUB, V.F., inzh.; LOZOVY, Yu.I., kand. tekhn. nauk

Proximate control of prestressed struts for deformation. Prom.
strol. 42 no. 6:31-33 '65. (MIRA 18:12)

ACC NR: AP7000597 (V) SOURCE CODE: UR/0129/66/000/011/0055/0058

AUTHOR: Dabagyan, N. P.; Nikitina, O. I.; Ivanova, N. K.; Chub, V. M.

ORG: Ukrainian Scientific Research Institute of Metals (Ukrainskiy nauchno-issledovatel'skiy institut metallov)

TITLE: The influence of nickel-interlayer thickness on the structure and properties of clad steel

SOURCE: Metallovedeniya i termicheskaya obrabotka metallov, no. 11, 1966, 55-58

TOPIC TAGS: metal joining, bimetal, nickel plating, metal cladding, steel /Kh18N10T steel, Kh17N13M2T steel

ABSTRACT: The thickness of a nickel interlayer plays a major role in promoting or inhibiting diffusion processes at the boundaries of metal joints and affects the properties and structure of the boundary zone. To determine this effect with respect to the strength of the joint and the structure of the bimetal, investigations were carried out on specimens made from laboratory and industrial clad steel.

Card 1/2

UDC: 669.24:669.14.018:8'14

ACC NR: AP7000597

The laboratory test pieces were made of rolled packs of Kh18N10T and St. 3sp types of steel with and without nickel interlayer, the thickness of the interlayer being 10, 25, 40, 65, and 90 microns. The tests were conducted for shear and tensile strength, notch toughness, cohesion strength, metallographic investigations, and spectrum analysis. The industrial test pieces were made of 10—14-mm-thick clad-steel sheets with a cladding layer of Kh17N13M2T steel, and basic layer from 20K type steel without ant with nickel plate of a thickness of 25—30, 40, 50, 65, and 90 microns. The cohesion strength of both layers is found to increase as the thickness of the nickel interlayer is increased. The latter also affects diffusion at the metal layer interface and as a result the hardness and microhardness, as well as changes in the concentration of alloying elements. The maximum carbon concentration is found to be inversely proportional to the thickness of the nickel interlayer. The same is observed with respect to carbon diffusion. In steel clad without interlayer, there occurs complete decarbonization of the boundary layer of the non-carbon steel. A nickel interlayer lowers decarbonization of the boundary layer of St. 3sp steel and hinders the enrichment of the cladding steel in carbon.

[KP]

SUB CODE: 11/SUBM DATE: none/

Card 2/2

DABAGYAN, N.P.; CHUB, V.M.; TIMOFEYEV, D.I.; KHOROSHILOV, N.M.;
LOKTIONOV, P.Ya.; SHUL'GA, Ye.A.

Experience of manufacturing two-layer sheet steel at the
Kommunarsk Metallurgical Plant. Stal' 24 no.8:718-721 Ag '64.
(MIRA 17:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov
i Kommunarskiy metallurgicheskiy zavod.

DABAGYAN, N.P.; CHUB, V.M.; TIMOFEYEV, D.I.; SHUL'GA, Ye.A.

Pack rolling of large-size, two-layer steel plate. Met.1
gornorud.prom. no.5:29-33 S-O '62. (MIRA 16:1)

1. Ukrainskiy institut metallov (for Dabagyan, Chub).
2. KommunarSKIY metallurgicheskiy zavod (for Timofeyev, Shul'ga).
(Rolling (Metalwork)) (Plates, Iron and steel)

ACCESSION NR: AP4043485

S/0133/64/000/008/0718/0721

AUTHOR: Dabagyan, N.P., ~~Chuh, V.M.~~, Timofeyev, D.I., Khoroshilov, N.M.,
Loktionov, P. Ya., Shul'ga, Ye. A.

TITLE: Experiences in the production of two-layer sheet steel at the Kommunar metallurgical plant

SOURCE: Stal', no. 8, 1964, 718-721

TOPIC TAGS: steel rolling, rolling mill, sheet steel, two layer sheet steel, pack rolling, steel cladding, cast cladding, bimetal, clad steel

ABSTRACT: In a discussion of the pack-rolling of two-layer sheet steel, introduced in 1963 at the Kommunar plant, the authors specify the difficulties encountered in the previous cast-cladding process and indicate that higher technological efficiency and production on a much larger scale can be achieved with the new process without affecting the high quality of the product. To produce two-layer sheets, symmetrical four-layer packs whose size is prescribed by nomograms, are assembled from the basic steel plates a, cladding plates b, and interlayers c, as shown in the Enclosure. The equations from which specifications of the pack components are found, the necessary nomograms and the details of the process are presented. An interlayer distribution curve for carbon, chromium and nickel in a
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ACCESSION NR: AP4043485

bimetal prepared by the pack-rolling process is shown. The diffusion of the elements was investigated by metallographic, electron microscopic and layer-by-layer spectral and chemical analyses, and by means of C^{14} . From the nomograms, pack specifications for two-layer 8-25 mm thick 20k + Kh17N13M2T steel sheets can be calculated, including the proper upper-to lower plate thickness ratio. This ratio (optimally about 1.08), designated the coefficient of equithickness, is introduced into the calculations to offset nonuniform metal expansion due to a temperature gradient across the pack during heat treatment. To reduce this effect, the temperature in the upper, lower and tempering section of the furnace is held at 1340-1360, 1320-1340, and 1240-1220C, respectively. Orig. art. has: 5 figures, 1 table and 4 formulas.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut metallov (Ukrainian Scientific Research Institute of Metals); Kommunar'skiy metallurgicheskiy zavod (Kommunar Metallurgical Plant)

SUBMITTED: 00

ENCL: 01

SUB CODE: MM, IE

NO REF SOV: 000

OTHER: 000

Card 2/3

BABKINA, V.Yu.; CHUB, Ye.G.; GAPUNINA, O.V.; SKUDAR', I.K.

Laboratory model of a steaming unit for corrosion tests. Zav. lab.
30 no.1:1280-1281 '64. (MIRA 18:4)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii.

CHUBA, S.P.

Changes in the cardiovascular system in the presence of latent
centers of infection and toxicity. Vrach.delo no.2:151-154
F '59. (MIRA 12:6)

1. Kafedra propedevniki vnutrennikh bolezney (sav. - prof.
F.Ye.Prinak) Kiyevskogo meditsinskogo instituta.
(CARDIOVASCULAR SYSTEM) (TONSILS--DISEASES)

CHUBA, S.P.

Treatment of the hyperthyroid form of goiter at the dispensary.
Vrach.delo no.12:1283-1287 D '59. (MIRA 13:5)

1. Ternopol'skiy oblastnoy protivosobnyy dispenser (nauchnyy
rukovoditel' raboty - prof. T.T. Glukhen'kiy).
(GOITER)